

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed on February 07, 2008. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Discussion of Office Action Rejections under 35 U.S.C. 112

The phrases “charge/discharge”, “charges/discharges” and “charging/discharging” described in claim 1, 12 and the specification of the present invention are respectively amended to “charge or discharge”, “charges or discharges” and “charging or discharging”. The phrase “A driving circuit of a current-driven active matrix organic light emitting diode (AMOLED)” described in the claim 1 is amended to “A driving circuit used for a current-driven active matrix organic light emitting diode (AMOLED)”.

This Amendment is promptly filed to place the above-captioned case in condition for allowance. Upon entry of the foregoing amendments, claims 1, 7-14 remain pending in the application. More specifically, claims 1, 12 have been directly amended. Applicants wish to clarify that the foregoing amendments have been made for purposes of more clearly and/or better defining the invention in accordance with 35 U.S.C. § 112, and not in response to the rejections made based on prior art. Indeed, Applicants submit that no substantive limitations have been added to the claims. Therefore, no prosecution history estoppel arises from this/these amendment/amendments.

It is believed that the foregoing amendments add no new matter to the present application. Applicants believe that these amendments place the claims in condition for

allowance. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Discussion of Office Action Rejections under 35 U.S.C. 102

Claims 1 and 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yumoto. Applicant respectfully traverses the rejection addressed to claims 1 and 10-14 for at least the reasons set forth below.

In order to properly anticipate Applicant's claimed invention under 35 U.S.C 102, each and every element of claim in issue must be found, "either expressly or inherently described, in a single prior art reference". "The identical invention must be shown in as complete details as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." See M.P.E.P. 2131, 8th ed., 2001.

Moreover, the examiner has contended that Yumoto discloses in FIG.24 that the current source being used to charge or discharge a capacitor directly connected to a gate of driving thin film transistor. However, the two capacitors C and Cd in FIG.24 are individual elements and are **not directly** connected to each other in parallel; therefore they cannot be combining directly into an equivalent single capacitor. The two capacitors C and Cd disclosed by Yumoto are disposed in different locations, and the capacitor Cd is not coupled to the thin film transistor TFT2. By contrast, the capacitor 660 depicted in FIG. 6 of the present invention is a single element coupled to the gate of the driving thin film transistor 650 of the AMOLED pixel. Accordingly, the capacitors C and Cd taught

by Yumoto are not equivalent to the capacitor 660 claimed in Applicant's claim 1.

In addition, the examiner has contended that Yumoto discloses in FIG. 24 that a pre-charge switch [Fig. 24; PRC1] connected to the gate of the driving thin film transistor and a driving source [Fig. 24; Vdd]. However, as shown in FIG. 24 of Yumoto, the PRC1 only connected to the capacitor Cd and Vdd. Yomoto failed to disclose explicitly or suggest implicitly that the PRC1 **directly connected** to the gate of the driving thin film transistor [Fig. 24;TFT2].

Furthermore, the examiner has contended that Yumoto discloses in FIG.24 that the first switch with one end connected to the anode of the OLED and another end connected to a drain of the driving thin film transistor. However, as shown in FIG.24 of Yumoto, the TFT1 only connected to the gate of the driving thin film transistor's (FIG.24, TFT2). Yumoto failed to disclose explicitly or suggest implicitly that one end of TFT1 is connecting to the drain of the driving thin film transistor, and the other end of the TFT1 is connecting to the anode of the OLED.

Moreover, the examiner has contended that Yumoto discloses in FIG.24 that the second switch with one end connected to the current source and another end connected to a drain of the driving thin film transistor. However, as shown in FIG.24 of Yumoto, the TFT3 only connected to the gate of the driving thin film transistor's (FIG.24, TFT2). Yumoto failed to disclose explicitly or suggest implicitly that one end of TFT3 is connecting to the drain of the driving thin film transistor.

Similarly, the examiner has contended that Yumoto discloses in FIG.24 that the

third switch with one end connected to the drain of the driving thin film transistor and another end connected to the gate of the driving thin film transistor and one end of the capacitor, the other end of the capacitor being connected to a second power source. However, as shown in FIG.24 of Yumoto, the TFT4 only connected to the gate of the driving thin film transistor's (FIG.24, TFT2). Yumoto failed to disclose explicitly or suggest implicitly that one end of TFT4 is connecting to the drain of the driving thin film transistor.

From the above statement, it is easy to see that the only similarity between Yumoto and the present application is that they both shown an electrical circuit with circuit elements connected with each other. In the present application, the phrase "directly connected" means they physically connect the said circuit elements together without having to pass through other circuit elements. By contrast, the connections pointed out by the examiner are either connection that connects completely different circuit elements from the claim 1 of the present application, or they are indirectly connection, meaning they are physically connected to other circuit elements first before being connected to the said circuit element. Thus, the applicant contends that Yumoto neither explicitly teaches nor implicitly suggests said features which have been encompassed into claim 1 upon entry of the proposed amendments. As such, claim 1 of the present invention and claims 10-11, 15 and 16 depending thereupon should be novel and patentable over Yumoto. Withdrawal of the 102 rejections of claims 1, 9-11, and 15-16 are accordingly requested.

With respect to claim 12, as currently amended, it recites,

“A method for driving a current-driven active matrix organic light emitting diode (AMOLED) pixel, wherein a pre-charge switch is connected between a gate of a driving thin film transistor of the AMOLED pixel and a driving power source, and a capacitor is directly connected to the gate of the driving thin film transistor of the AMOLED pixel, the method comprising the steps of:

directly pre-charging the capacitor through the pre-charge switch by using the driving power source;

adjusting a gray-scale charging voltage of the capacitor by charging or discharging the capacitor using a current source; and
stopping charging or discharging the capacitor through the current source to control the AMOLED pixel to enter an illumination stage.”

The amended claim 12 has now incorporated “direct connection” subject matter and limitations. Furthermore, the examiner has contends that Yumoto discloses in FIG.24 that capacitor (FIG.24, Cd) is indeed directly connected to the pre-charge switch. However, the applicant would like to point out that because the capacitor Cd in Yumoto is directly connected to the data line (DATA), when the DATA is turned on, current coming out from DATA will start to charge the capacitor Cd, and when the DATA is turned off, there will be no current feeding the capacitor Cd and it will start to discharge. As such, Yumoto’s configuration cannot stop capacitor Cd to charge or discharge in independent of data line (DATA), thus Yumoto failed to discloses the stopping charging or

discharging the capacitor through the current source to control the AMOLED pixel to enter an illumination stage function stated in claim 12. Hence, the independent claim 12 is believed to be novel and allowable over Yumoto, and so are the claims 13-14 depending upon the allowable claim 12 of the present invention. Withdrawal of the 102 rejections of claims 12-14 is respectfully requested.

Discussion of Office Action Rejections under 35 U.S.C. 103

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yumoto.

Applicant hereby otherwise traverses the rejections for at least the reasons provided hereinafter.

Since dependent claim 7 inherit all of the limitations of the parent claim 1, the claim 7 dependent upon the allowable claim 1 are also allowable as a matter of law. Withdrawal of the 103 rejections is thus courteously requested.

CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1, 6-7 and 9-14 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

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